

## 03050202-050

(Stono River)

### General Description

Watershed 03050202-050 is located in Dorchester and Charleston Counties and consists primarily of the **Stono River** and its tributaries from Log Bridge Creek to Wappoo Creek. The watershed occupies 157,400 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. The predominant soil types consist of an association of the Meggett-Brookman-Bladen-Chisolm series. The erodibility of the soil (K) averages 0.15 and the slope of the terrain averages 1%, with a range of 0-6%. Land use/land cover in the watershed includes: 70.7% forested land, 7.0% forested wetland, 7.0% nonforested wetland, 5.8% urban land, 4.8% scrub/shrub land, 2.4% water, 2.2% agricultural land, and 0.1% barren land.

This segment of the Stono River, classified SFH, runs from Log Bridge Creek (near to its connection with the Edisto River Basin) to Wappoo Creek (which connects to the Ashley River), and drains into the lowest segment of the Stono River. Scotts Branch flows into Fishburne Creek, which in turn flows into Horse Savanna and Rantowles Creek. Rantowles Creek accepts drainage from the Wallace River (Caw Caw Swamp, Drayton Swamp, Caddin Bridge Swamp) and then flows into the Stono River. Log Bridge Creek (Middle Branch, Mellichamp Branch) also flows into the Stono River and shares drainage with the Wallace River. Downstream from the SCL Railroad Bridge, the Stono River incorporates the drainage of Long Branch Creek, Sandy Bay, and Elliott Cut (Wappoo Creek). Wappoo Creek is classified SB. There are a total of 89.6 stream miles, 161.9 acres of lake waters, and 2,389.5 acres of estuarine areas in this watershed.

### Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
MD-121	S/W	SFH	LOG BRIDGE CREEK AT SC 162
MD-202	P/INT	SFH	STONO RIVER AT S-10-20, 2 MI UPSTREAM OF CLEMSON EXP. STATION
MD-025	S/W	SFH	MOUTH OF ELLIOTT CUT AT EDGE WATER DR. (S-10-26 OFF HWY 17)
MD-020	P/W	SB	MOUTH OF WAPPOO CREEK BETWEEN CHANNEL MARKERS 3 & 4

**Log Bridge Creek (MD-121)** – Aquatic life uses are fully supported; however, there is a significant increasing trend in turbidity. There is a significant increasing trend in pH. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are partially supported due to fecal coliform bacteria excursions.

**Stono River (MD-202)** - Aquatic life uses are not supported due to dissolved oxygen and copper excursions. There is also a significant increasing trend in total phosphorus concentration. A significant increasing trend in dissolved oxygen and significant decreasing trends in five-day biochemical oxygen

demand and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported.

**Elliott Cut (MD-025)** - Aquatic life uses are partially supported due to dissolved oxygen excursions. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are fully supported, and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

**Wappoo Creek (MD-020)** - Aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen and significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. There is a significant decreasing trend in pH. Recreational uses are fully supported, and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

## Shellfish Monitoring Stations

<u>Station #</u>	<u>Description</u>
10B-08	CENTER OF ASHLEY RIVER – OFF COAST GUARD BASE
11-01	ELLIOT CUT AT STONO RIVER
11-02	STONO BRIDGE AT SC HWY 700
11-11	STONO RIVER (AIWW) AT MARKER 21A
11-12	STONO RIVER (AIWW) AT MARKER 27
11-16	STONO RIVER (AIWW) AT MARKER 51
11-17	STONO RIVER (LOG BRIDGE CREEK) AT MARKER 54
11-18	CONFLUENCE OF RANTOWLES CREEK AND THE STONO RIVER
11-20	ASHLEY RIVER AT WAPPOO CUT
11-27	STONO RIVER AT MOUTH OF PENNY CREEK NEAR MARKER 25

## NPDES Program

### Active NPDES Facilities

<i>RECEIVING STREAM</i>	<i>NPDES#</i>
<i>FACILITY NAME</i>	<i>TYPE</i>
<i>PERMITTED FLOW @ PIPE (MGD)</i>	<i>COMMENT</i>
MIDDLE BRANCH	SCG730126
D&A PARTNERSHIP/RAVENEL MINE	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	

## Nonpoint Source Management Program

### Land Disposal Activities

#### Landfill Facilities

<i>LANDFILL NAME</i>	<i>PERMIT #</i>
<i>FACILITY TYPE</i>	<i>STATUS</i>
BEES FERRY	101001-1201 (101001-1101,
MUNICIPAL	ACTIVE DWP-124, DWP-083)
TRIDENT LANDFILL	DWP-005
MUNICIPAL	CLOSED

***Mining Activities******MINING COMPANY  
MINE NAME******PERMIT #  
MINERAL***TRULUCK CONSTRUCTION CO., INC.  
PLANT SITE0196-19  
SANDMAD DOG MINING, INC. (FELDER)  
MAD DOG MINE #20645-19  
SAND; SAND/CLAYD&A PARTNERSHIP  
RAVENEL MINE1089-19  
SANDPALMETTO SAND CO., INC.  
FISHBURNE CREEK MINE1092-35  
SANDMURRAY MINES, INC.  
TREE HOUSE MINE1110-35  
SANDCOASTAL MINING CO.  
PERRY MINE1483-35  
SANDCOASTAL CONTAINER CO., INC.  
PERRY MINE1461-35  
SANDROGERS & SON CONSTRUCTION CO.  
CONE UNIT/ASHLEY DISTR.1466-35  
SANDKEITH BISHOP LAND CLEARING  
JOELS LAKE MINE1290-19  
SANDKEITH BISHOP LAND CLEARING  
JOELS SECOND LAKE1441-19  
SANDJAMES COOK  
COOK #11295-19  
SANDDAVID P. RICHARDSON  
RICHARDSON MINE1532-19  
SANDHOME BUILDERS, INC.  
TK DIRT WORKS1277-19  
SANDCHARLESTON COUNTY  
KINSEY-BLAKE BORROW PIT0314-19  
SAND; SAND/CLAYW. FRAZIER CONSTRUCTION CO., INC. (DIRTCO)  
MURRAY WOODS PIT0512-19  
SAND/CLAYISLAND CONSTRUCTION CO., INC.  
TREMONT MINE0660-19  
SAND

## **Growth Potential**

This watershed contains the Towns of Ravenel and Hollywood and a portion of the City of Charleston. The areas with a high potential for growth in the watershed include Stono Ferry in Hollywood; Rushland Plantation, Headquarters Plantation, and Fenwick Acres on Johns Island; and Bees Landing and Essex Farms in the City of Charleston. Water and sewer services are available to all these growth areas.